



Triode Type BR 154

VHF AMPLIFIER

General. The BR 154 is a forced-air-cooled transmitting triode fitted with an indirectly heated oxide-coated cathode. The valve is particularly suitable for use in grounded-grid circuits.

Cooling. The anode requires forced air cooling. The air cooling characteristics given show radiator temperature rise °C/anode dissipation for various air-flow values. The following temperatures must not be exceeded.

Air inlet temperature 45°C

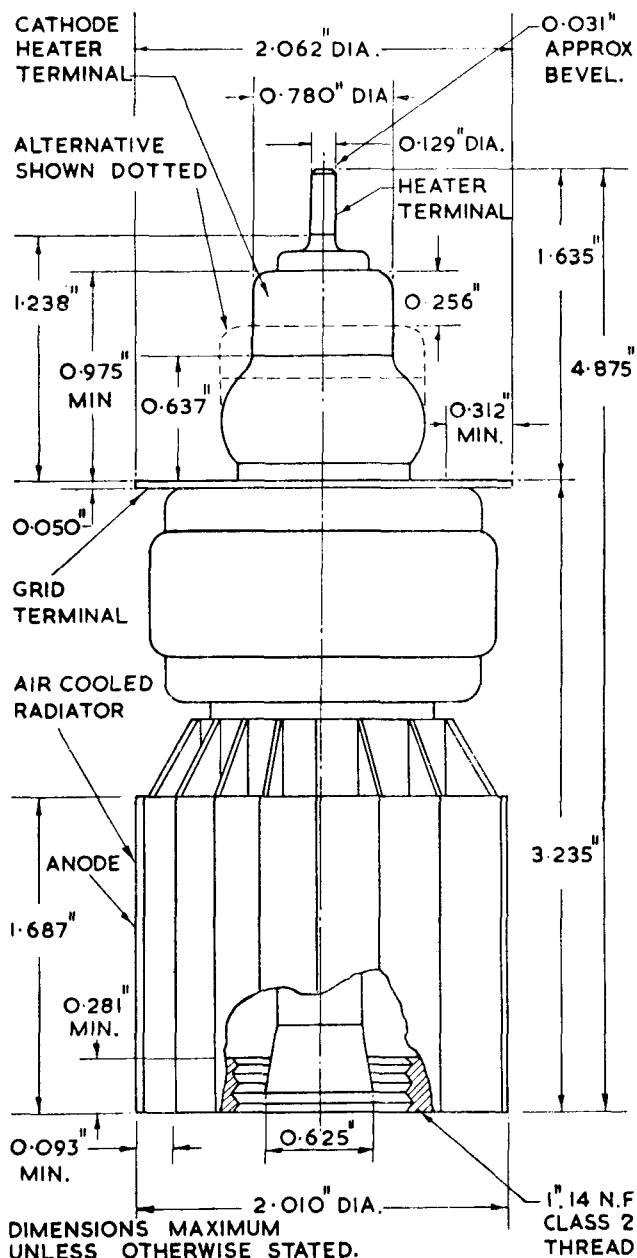
Radiator temperature 180°C

(measured on the core at end away from incoming air)

Bulb temperature 180°C

Grid seal temperature 140°C

The air-flow should be directed towards the bulb and over the grid terminal. Air-flow should be started before the application of any supply voltage and should be continued for at least one minute after the removal of any supply voltages.



WEIGHT 1 lb. (0.5 kg.)

MARCONI'S WIRELESS TELEGRAPH COMPANY LIMITED

Head Office: Marconi House, Chelmsford, England. Telephone: Chelmsford 3221. Telegraphic Address: Expanse, Chelmsford

APPROXIMATE DATA

V_h	3.3	V
I_h	11.5	A
t_k (min)	2	min.
μ	25	
f (max)	220	Mc/s
C_{a-gl}	10.3	pF
C_{a-k}	0.5	pF
C_{gl-k}	26	pF

RF POWER AMPLIFIER AND OSCILLATOR CLASS C TELEGRAPHY

(Unmodulated, one valve, key down conditions)

Maximum permissible ratings

V_a	1,500	V
V_{gl}	-250	V
I_a	300	mA
I_{gl}	50	mA
P_{in}	450	W
p_a	250	W

Typical Operation

Grounded-cathode circuit

f	220	Mc/s
V_a	1,500	V
V_{gl}	(i) from fixed supply of (ii) via R_k	-175 V
V_{gl} (pk)	210	V
I_a	300	mA
I_{gl} (a)	40	mA
P_{dr} (a)	8	W
P_{out} (a)	290	W

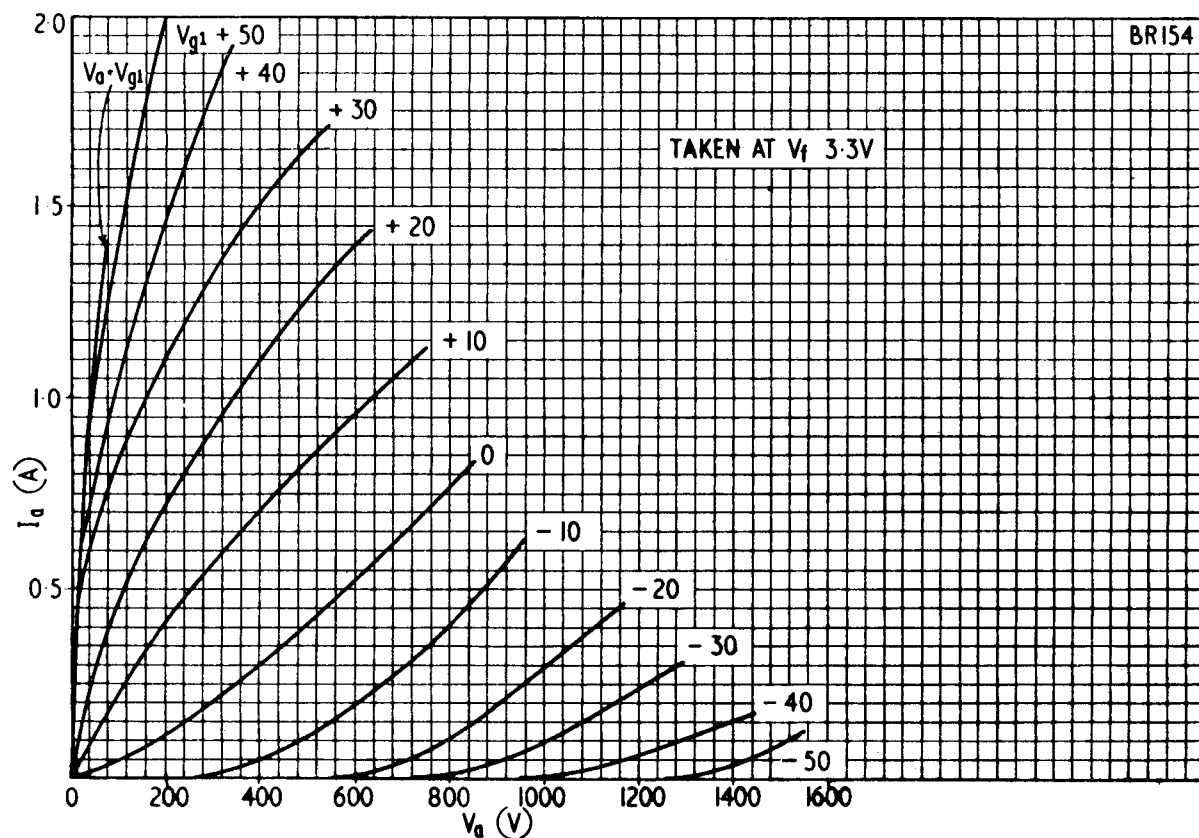
Grounded-grid circuit

Same values as for grounded-cathode circuit but with following exceptions:

P_{dr} (a)	65	W
P_{out} (a)	325	W

NOTES

(a) Figures are approximate only.



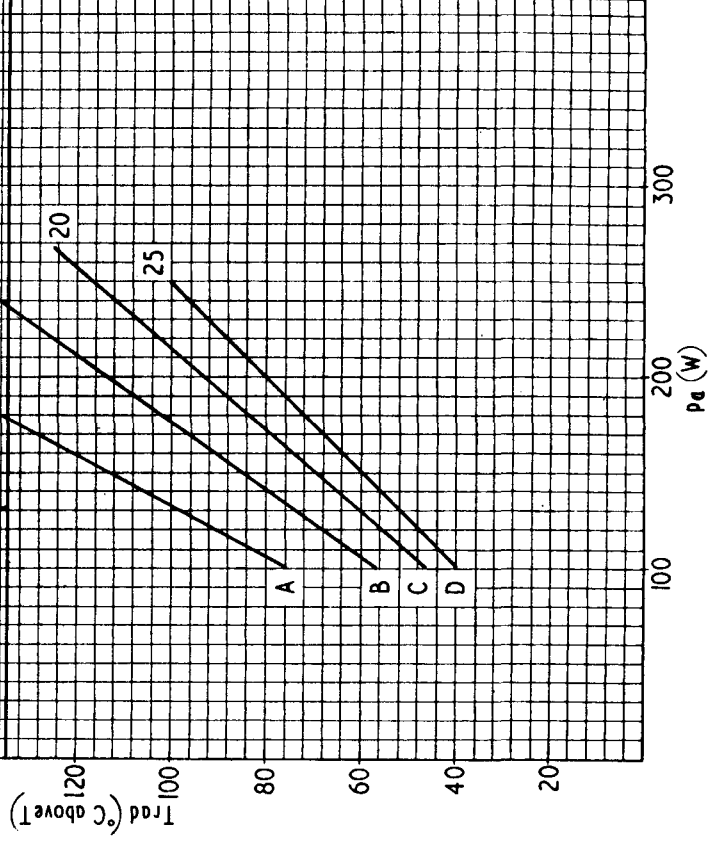
BR154

TAKEN AT V_f 3.3V

CURVE	A_p (in. W.G.)
A	0.17
B	0.33
C	0.55
D	0.82

$Q = 10 \text{ ft}^3/\text{min}$

MAXIMUM ALLOWABLE
TEMPERATURE RISE WITH
45° AMBIENT AIR



BR154

TAKEN AT V_f 3.3V

